

# IDENTIFICATION OF MICHIGAN LARVAL MOSQUITOES



Michael Kaufman - Entomology Dept., Michigan State University

## SOURCES AND ACKNOWLEDGEMENTS

Walker, E. D., and H. D. Newson. 1996. Culicidae. In: R. W. Merritt and K. W. Cummins, eds. An Introduction to the Aquatic Insects of North America. Kendall-Hunt Pub. Co., Dubuque, Iowa, USA. pp. 571-590.

Wilmot, T. R., D. S. Zeller, and R. W. Merritt. 1992. A key to container-breeding mosquitoes of Michigan (Diptera: Culicidae), with notes on their biology. Great Lakes Entomologist, 25:137-148.

Darsie, R. F. Jr., and R. A. Ward. 1981. Identification and Geographical Distribution of the Mosquitoes of North America North of Mexico. Amer. Mosq. Cont. Assoc. Pub., Fresno, CA, USA. pp.

**Photos from:**

**New South Wales Arbovirus Surveillance & Vector Monitoring Program Website:**

[www.arbovirus.health.nsw.gov.au/areas/arbovirus/index.html](http://www.arbovirus.health.nsw.gov.au/areas/arbovirus/index.html)

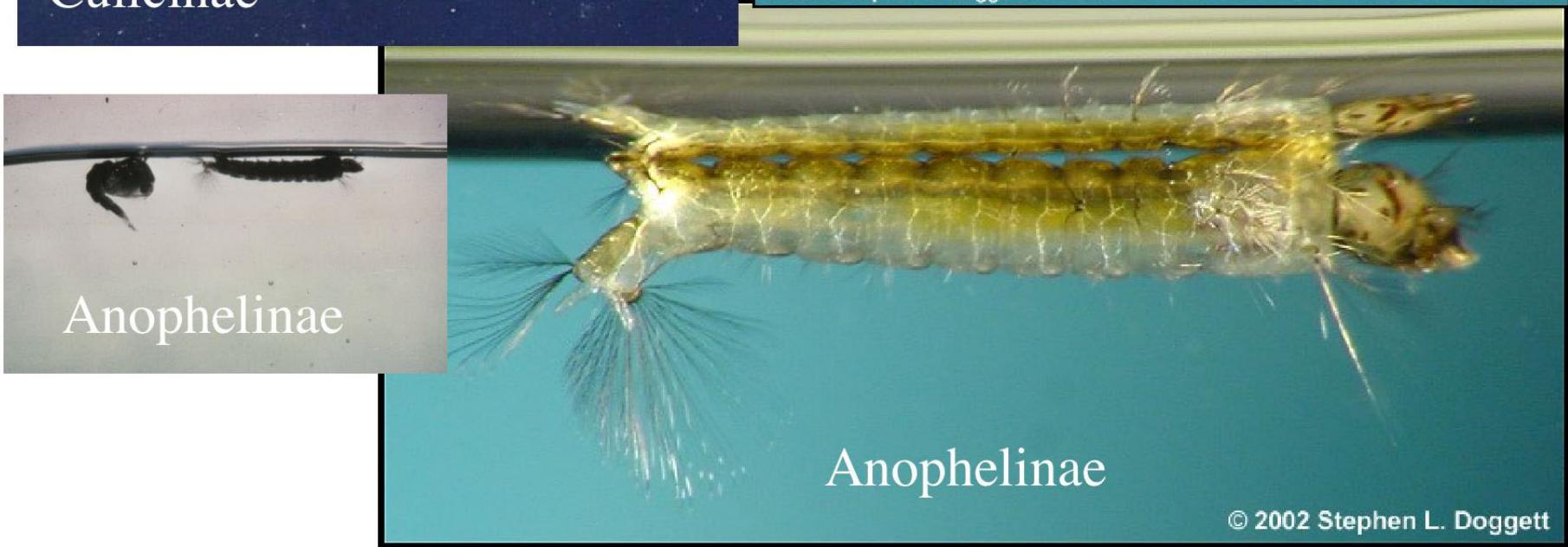
**What are NOT good larval characters:**

**Size**

**Color**

**Taste**

# Two main groups (subfamilies) of mosquitoes in Michigan



A photograph showing four mosquito larvae against a light blue background. The larvae are elongated with segmented bodies, long prolegs, and a prominent dark head. The one at the top is labeled 'Aedes'. The second from the top is labeled 'Anopheles'. The third from the top is labeled 'Culex'. The fourth from the top is unlabeled but belongs to the same family.

**Aedes**

Culicinae

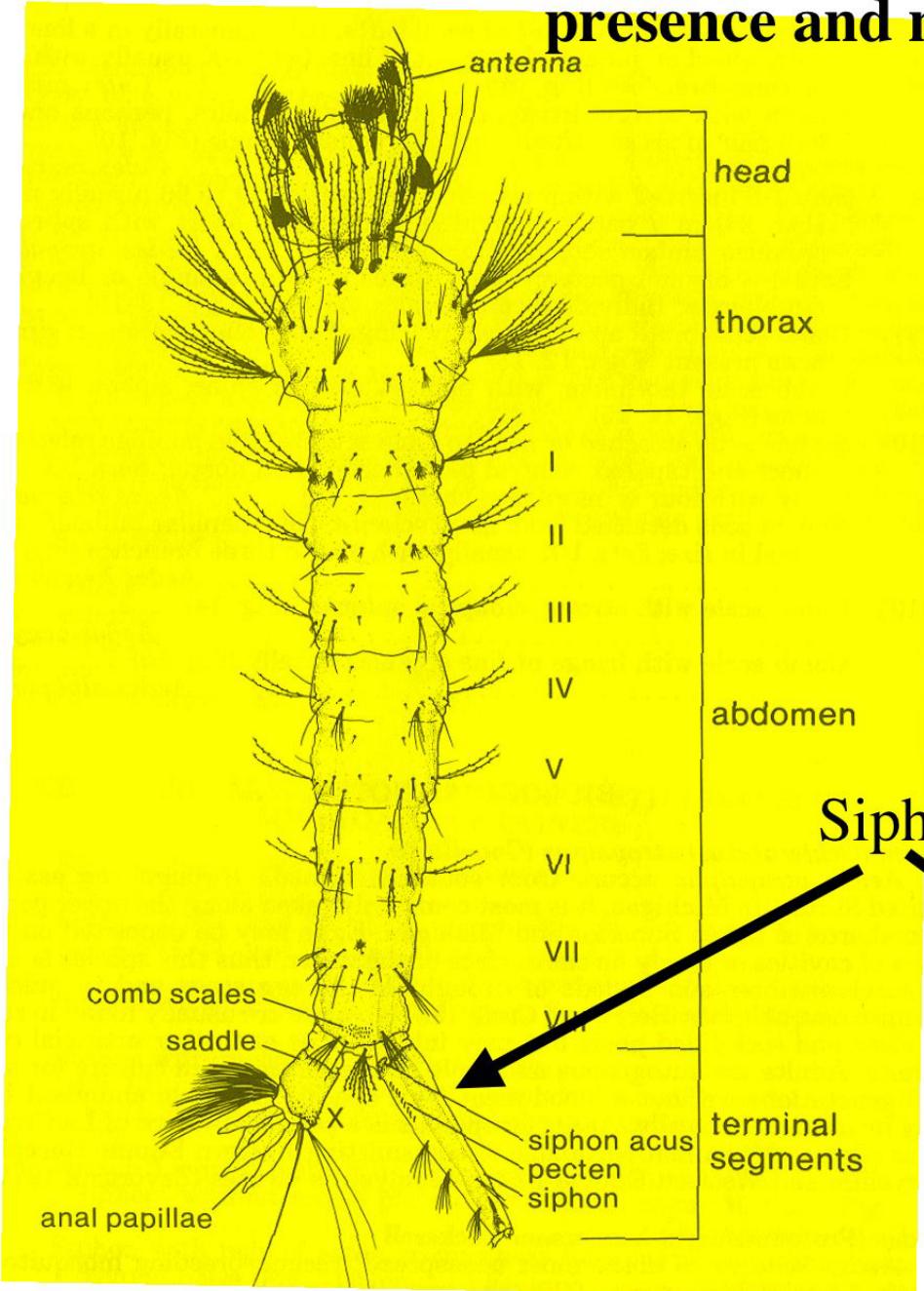
**Anopheles**

Anophelinae

**Culex**

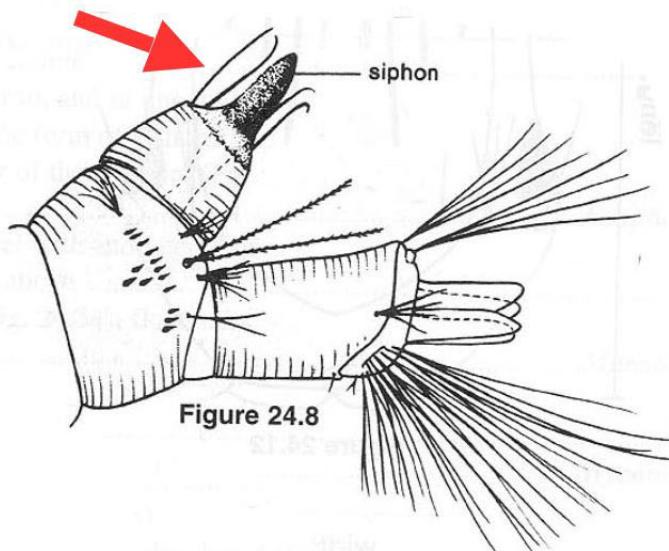
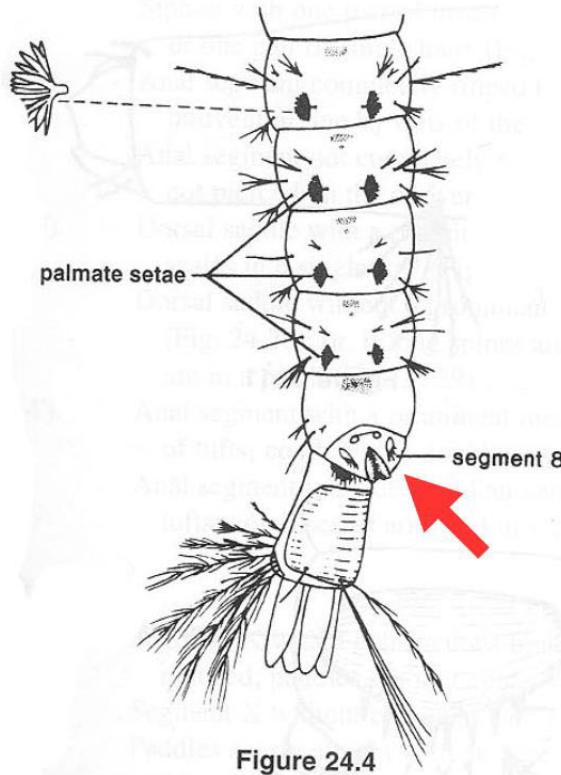
Culicinae

# Larval taxonomy based in large part on siphon (breathing tube) presence and morphology

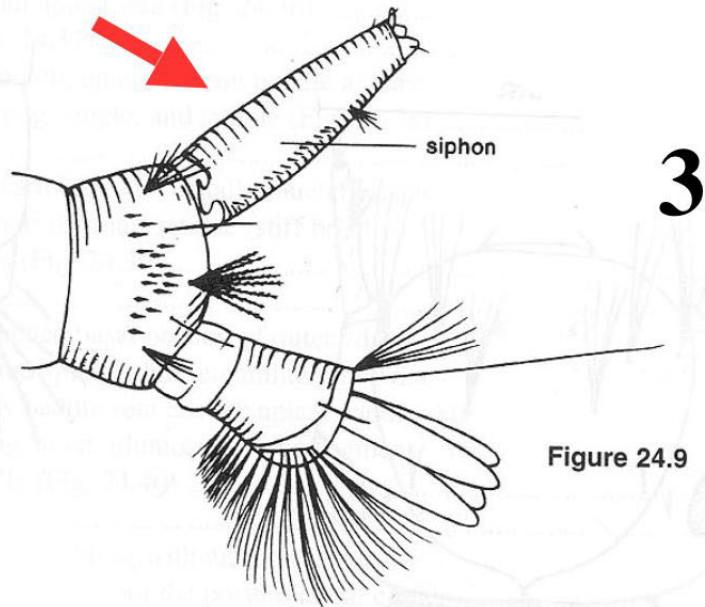


# Generalized breathing tube (siphon) types in larval mosquitoes

1



2



1. No distinct siphon = *Anopheles*



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**2. Short (truncated) siphon with pointed tip =  
*Mansonia/Coquillettidia***



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# *Mansonia/Coquillettidia*



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